



NAVAL AVIATION VISION  
2020



# FUTURE READINESS

## SEA POWER 21

In the 21<sup>st</sup> century, innovative concepts and technologies will integrate sea, land, air, space, and cyberspace to a greater extent than ever before. In this unified battlespace, the sea will provide a vast maneuver area from which to project direct and decisive power around the globe.

Future Naval operations will use revolutionary information superiority and dispersed, networked force capabilities to deliver unprecedented offensive power, defensive assurance, and operational independence to Joint Force Commanders. Our Navy and Marine Corps will dominate the continuum of warfare from the maritime domain—deterring in peacetime, and winning in wartime. To realize the opportunities and navigate the challenges ahead, we must have a clear vision of how our Navy and Marine Corps will organize, integrate, and transform.

Sea Power 21 is that vision. It will align our efforts, accelerate our progress, and give us the pervasive knowledge, speed, agility, and persistent precision necessary to defeat our enemies. It will guide our Navy and Marine Corps as we defend our nation in the uncertain century before us. Sea Power 21 encompasses four major concepts, or pillars: FORCEnet, Sea Strike, Sea Shield, and Sea Basing.







# FORCENET

FORCENet ties the pillars of Sea Strike, Sea Shield, and Sea Basing together. It is the persistent integration of warriors, sensors, networks, platforms, and weapons into a networked, distributed combat force across the spectrum of conflict from seabed to space and sea to land. FORCENet implements the Global Information Grid (GIG) and is the Navy's portal to GIG Enterprise Services (GIG-ES)—a suite of value-added information, web, and computing capabilities that improve user access to mission critical data, enhancing the pervasive awareness of the battlespace. It will transform the way we receive information, enabling decision-makers to react quickly and decisively with superb situational awareness. FORCENet will harness information required for knowledge-based combat operations and increased survivability, and will also provide real-time enhanced collaborative planning among Joint and coalition partners. FORCENet will speed the distribution of smart-weapon sensor information, which will improve Battle Damage Assessment (BDA) and facilitate re-strike decisions. It will vastly improve our capabilities in Electronic Warfare (EW), littoral Anti-Submarine Warfare (ASW) and Information Operations (IO), and will enable Naval Aviation combat forces to achieve battlespace dominance in concert with other Naval and Joint forces across the full range of military operations.





## SEA STRIKE

Sea Strike is the projection of precise, persistent, and responsive offensive power. It is how the 21<sup>st</sup> century Navy and Marine Corps will exert direct, decisive, and sustained influence in Joint campaigns. The CSG and its embarked Carrier Air Wing, and the ESG and its Marine Expeditionary Unit's Aviation Combat Element (ACE), are ideally suited for this type of effects-based warfare, generating the right effect on the right target at the right time. With real-time battlespace awareness, the CSG and ESG can deliver high-volume, lethal fires against critical vulnerabilities, defeating the enemy's strategy early in the conflict. Sea Strike will involve the dynamic application of persistent Intelligence, Surveillance, and Reconnaissance (ISR), Time Sensitive Strike (TSS), Ship-To-Objective Maneuver (STOM), IO, and covert strike to deliver devastating power and accuracy. Sea Strike capitalizes on early war-termination opportunities that would be lost under attrition-oriented warfare, and the strategic flexibility and operational independence of our CSGs and ESGs enables us to take the fight to the enemy—on our terms.

## SEA SHIELD

Sea Shield projects defensive assurance from the sea to dissuade and deter adversaries in multiple theaters. It takes us beyond unit and task force defense to provide the nation with sea-based theater and strategic defense. Sea Shield will protect our national interests with layered global defensive power stemming from control of the seas, forward presence, and networked intelligence. It will enhance homeland defense, assure access to contested littorals, and project defensive power deep inland. As with Sea Strike, the foundation of Sea Shield integrated operations will be information superiority, total force networking, and an agile and flexible sea-based force. Sea Shield forces will defeat attempts at anti-access and area-denial by enemy aircraft, missiles, small surface combatants, mines, and submarines. Highly capable, survivable, sea-based Naval aircraft will extend and dominate the battlespace, augmented by unmanned platforms and Maritime Patrol Aircraft (MPA). Naval forces will defend the Sea Lines of Communication (SLOC) and establish presence ashore, clearing the way for sealift and airlift assets.

## SEA BASING

Sea Basing enhances the deployment and employment of Naval expeditionary forces. The maritime battlespace is a secure and autonomous arena for Joint and allied operations, and Naval forces operating on the high seas enjoy a unique level of independence. Sea Basing refers to our ability to project Joint operational independence and sustain forward-deployed Naval forces at sea for extended periods, without depending on host nation support at overseas land bases. As such, Sea Basing serves as the foundation from which offensive and defensive fires are projected—making Sea Strike and Sea Shield realities. Sea Basing will provide Joint Force Commanders with global command and control, and extend integrated logistics support to other services. Afloat positioning of these capabilities will strengthen force protection and free airlift/sealift to support missions ashore. Netted and dispersed sea bases will consist of numerous platforms, including nuclear-powered aircraft carriers, multi-mission destroyers, submarines with Special Forces, and Maritime Pre-Positioning Force (MPF) ships, providing greatly expanded power to Joint operations. Sea-based platforms will also enhance coalition-building efforts, sharing their information and combat effectiveness with other nations in times of crisis.





Sea Power 21 is a concept for which Naval Aviation is well suited. As the muscle of the CSG, Naval Aviation facilitates access in both defensive and offensive environments. The carrier and its embarked air wing provide Anti-Air, Anti-Submarine, Anti-Surface, and long-range strike capability, while simultaneously coordinating battle management as the primary Command, Control, Communications, Computers, and Intelligence (C<sup>4</sup>I) asset. The CSG and its Naval Aviation contingent will facilitate the integration of U.S. Naval power into global Joint operations.

Helping create the synergy required to fuse the pillars of Sea Power 21 into a cooperative strategy are two important initiatives: the Virtual SYSCOM (VS) and the Naval Capability Development Process (NCDP).



## VIRTUAL SYSCOM (VS) AND THE NAVAL CAPABILITY DEVELOPMENT PROCESS (NCDP)

Fundamental to the Sea Power 21 strategy is cohesive teamwork and cooperation. To that end, the concept of a Navy VS was adopted with the goal of bringing the four Systems Commands together to implement cost-wise, integrated, business and technical practices. The VS provides the consistent and broad base of cost, technical, and programmatic support necessary to shape and enforce the investment strategies of the Navy and Marine Corps.

Sea Power 21 also requires a *forward-looking* investment strategy whereby the right systems are developed and procured. The VS works hand-in-hand with the NCDP, supporting FORCEnet, Sea Basing, Sea Strike, and Sea Shield with capability-based investment decisions designed to meet future warfighting requirements. The three core NCDP product areas are:

- Sea Power 21 Capability Assessments
- Warfighting Analytic Studies
- Program Wholeness Reviews

A good example of collective SYSCOM efforts is the LHA Replacement, or LHA(R), the next step in the development of large-deck amphibious vessels. LHA(R) is being designed to accommodate the Marine Corps' future ACE including the F-35B *Joint Strike Fighter* and the MV-22 *Osprey*. The VS enhances the dialogue and integrates the tasking between NAVAIR, NAVSEA, and the Marine Corps so that vessels like LHA(R) can perform STOM and Operational Maneuver From The Sea (OMFTS).